

**SURREBUTTAL TESTIMONY OF MARK E. MEITZEN**

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Mark E. Meitzen. I am Vice President of Christensen Associates.  
My business address is 4610 University Avenue, Madison, WI 53705.

**Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?**

A. Yes, I have.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. I am responding to the rebuttal testimony of Dr. Staranczak and of Dr. Selwyn regarding the cost of capital used in the TFPRP. I then respond to Dr. Selwyn's criticism of the Ameritech TFP study. I also respond to Dr. Selwyn on the issue of output measurement and his reliance on the FCC's model to advocate a 6.5 percent X factor for Ameritech Illinois.

Cost of Capital

**Q. BOTH DR. STARANCZAK AND DR. SELWYN HAVE CONCERNS ABOUT THE TFPRP'S USE OF THE ECONOMY-WIDE COST OF CAPITAL. HOW DO YOU RESPOND?**

A. I explained in my rebuttal testimony the basis for using the economy-wide cost of capital in the TFPRP. It is possible that other data series could have been found to fulfill the FCC's mandate that the data used be publicly available and

verifiable. However, no one can doubt the accessibility and integrity of the data produced by the U.S Bureau of Economic Analysis.

As I demonstrated, substituting alternative values of the cost of capital in the TFPRP model that are presumably Staff's view of appropriate debt and equity costs, has a negligible effect on the TFPRP results. In fact, although Dr. Staranczak has reservations about the economy-wide cost of capital, he does conclude in his rebuttal testimony that (p. 19):

[T]he analysis Staff conducted through various data requests suggests that USTA's productivity and input price estimates do not change much when more appropriate capital measures are used. Consequently, Staff is not willing to reject the figures filed in the USTA productivity study although it still believes the methodology used to compute those figures is flawed.

**Q. AS IN HIS DIRECT TESTIMONY, DR. SELWYN STATES THAT A COST OF CAPITAL FOR "MONOPOLY" SERVICES ONLY SHOULD BE USED IN THE PRODUCTIVITY STUDY. DO YOU AGREE?**

A. No, I do not. As I stated in my rebuttal testimony, the cost of capital should be consistent with the entire range of services that are included in the computation of TFP, not just a subset of these services. Therefore, if a TFP study encompasses both competitive and "monopoly" services, the cost of capital should reflect this. However, Dr. Selwyn's concern should have been addressed in my rebuttal testimony where I substituted various capital costs into the TFPRP as requested by Staff that presumably represent Staff's view of an appropriate range of capital costs for Ameritech. As I demonstrated, these alternative values for the cost of capital have a negligible effect on my X factor calculations. Included among

these alternatives was the series that Dr. Selwyn notes in footnote 8 of his rebuttal testimony as declining from 10.26% in 1992 to 9.76% in 1998. Substituting this series in the TFPRP model produced an X factor of 3.3 percent, the same as the original results I reported.

Ameritech TFP Study

**Q. DR. SELWYN STATES THAT THE AMERITECH TFP MODEL CONTINUES TO BE DEFICIENT BECAUSE IT INCORRECTLY RELIES ON A COMPANY-SPECIFIC BENCHMARK INSTEAD OF AN INDUSTRY-SPECIFIC BENCHMARK. DO YOU AGREE?**

A. No, I do not. As I noted in my supplemental and rebuttal testimony, the Commission's Order, which approved the Ameritech Illinois alternative regulation plan, called for a review of the plan. The current proceeding is the review called for in that Order. Among the items to be reviewed is an assessment of the productivity gains that form the basis of the offset to inflation (i.e., "X factor") in Ameritech Illinois' price index formula. The Commission stated that the review should assess productivity gains for the economy as a whole, for the telecommunications industry (if data were available) and for Ameritech Illinois.<sup>1</sup> The Ameritech Illinois TFP study I introduced in this proceeding fulfills the Commission's desire to review company-specific productivity performance. Thus, Dr. Selwyn's criticism of the Ameritech Illinois TFP study on the basis that it

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<sup>1</sup> Order; p. 95

relies on a company-specific benchmark instead of an industry-specific benchmark is misplaced and irrelevant.

Output Measurement

**Q. DR. SELWYN REITERATES HIS CLAIM THAT LOCAL OUTPUT SHOULD BE MEASURED BY A SINGLE PHYSICAL MEASURE AND THAT DEMS ARE AN APPROPRIATE MEASURE OF LOCAL OUTPUT. DO YOU AGREE?**

A. No, I do not. As I discussed in my rebuttal testimony, the deflated revenue approach is appropriate in this case and there is wide acceptance of this approach. Dr. Staranczak has also concluded that the deflated revenue approach is appropriate here.

Both Dr. Staranczak and I have noted that local service is made up of a variety of outputs and, to the extent these outputs grow at different rates, it is not appropriate to proxy the growth in local service output with just one measure. Moreover, if, as Dr. Selwyn claims, there are adequate physical measures of local output, then one should be able to compute a comprehensive measure of local output based on a properly weighted set of these physical measures. If there are adequate physical measures available, there is no need to be selective and rely on just one of these physical measures as a proxy for all local output. In such an index, DEM would be but one component, weighted by its proportion of local service revenue.

**Q. DR. SELWYN CLAIMS THAT THE DEFLATED REVENUE APPROACH TO MEASURING OUTPUT IS FLAWED BECAUSE IT DOES NOT RECOVER THE UNDERLYING PHYSICAL MEASURES OF OUTPUT. TO DEMONSTRATE HIS POINT, HE USES AN EXAMPLE OF HERSHEY BARS. DOES THIS EXAMPLE CORRECTLY IDENTIFY A PROBLEM WITH THE DEFLATED REVENUE METHOD?**

A. No, it does not. The example mischaracterizes the process by which price indexes are constructed. Because of this mischaracterization, he ends up with a price index that produces a peculiar result. In computing a price index, one measures the change in a price of a good that has the same characteristics over time. In the Hershey bar example, the Hershey bar changes from being 6 ounces in the first year to 5 ounces in the second year. Because the Hershey bars have different characteristics in the different years, the correct treatment of them in constructing a price index is to treat them as different goods. Dr. Selwyn's price computation erroneously assumes that the two bars are the same good, which produces his misleading and incorrect result.

**Q. ASIDE FROM DR. SELWYN'S MISCHARACTERIZATION OF PRICE INDEXES, DOES HIS EXAMPLE HAVE ANY RELEVANCE TO THE ISSUE OF OUTPUT MEASUREMENT FOR LOCAL SERVICES?**

A. No. Dr. Selwyn claims that the appropriate measure of local output is the number of dial equipment minutes. This claim implies that the "true" price of local output is local revenue per dial equipment minute. Dr. Selwyn also claims that actual

prices set under regulation do not capture the “true” underlying output (p.9), while in a competitive market prices would capture the true underlying output (p.8).

One can reasonably question whether a competitive telecommunications market would only price minutes of use, given the fact that a substantial fraction of telecommunications cost is non-traffic sensitive.<sup>2</sup> But that is entirely beside the point. The relevant question is “What are the actual prices for local service?” This is the relevant question because the price cap index regulates actual prices charged, not some hypothetical set of prices.

In the case of telecommunications local service, there are numerous characteristics of local service, each with their own price. The correct way of capturing the overall price change for local service is to look at the price changes for each of these components. This approach produces the correct price index, and with the correct price index, the deflated revenue approach produces the correct quantity index.

**Q. IN HIS HERSHEY BAR EXAMPLE, DR. SELWIN EQUATES THE WRAPPER OF THE HERSHEY BAR WITH ACCESS LINES, SAYING THAT BOTH ARE SIMPLY THE DELIVERY PROCESS FOR THE REAL PRODUCT THE CONSUMER IS BUYING. DO YOU AGREE?**

A. No, I do not. First, his characterization of access lines as simply a delivery mechanism for telephone products that represent (p. 14) “the beneficial change in

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<sup>2</sup> For example, to better reflect more efficient pricing that would be the outcome of competitive markets, the FCC’s rate restructuring efforts have the goal of reducing per-minute charges and increasing per-line charges to better align rates with cost drivers.

output that is provided to consumers” is wrong. Access is a telephone service that produces “beneficial” output for consumers. In fact, Dr. Selwyn’s curious example makes this point when he says (p. 14), “the purpose of telephone service is the ability to make and receive telephone calls.” That is precisely the output of the access line service—the ability to make and receive telephone calls.

Second, Dr. Selwyn’s analogy falls apart because the bundles of goods he is comparing—i.e., the Hershey bar and the wrapper; and telephone calls and access lines—possess different characteristics that call for different approaches to measuring the output of each bundle. In particular, the Hershey bar and the wrapper are produced and purchased in fixed proportions—i.e., every Hershey bar has an associated wrapper—while access lines and telephone calls are not.

Therefore, when measuring the output growth of the Hershey bar/wrapper bundle, it can be measured by either element of the bundle, since both grow at the same rate. However, this is not true of the access line/telephone call bundle. Since access lines and telephone calls can grow at different rates, an appropriate measure of the bundle’s output must account for the growth in each element of the bundle. In this case, using only one element of the bundle is not sufficient to accurately represent the overall output growth of the bundle.

**Q. DOES DR. SELWYN’S PROPOSAL TO MEASURE LOCAL OUTPUT BY DEM ONLY MAKE SENSE IN THE CONTEXT OF PRICE CAP REGULATION?**

- A. No, it does not. The point of the example in my rebuttal testimony was to demonstrate the necessity of capturing the output dimensions that go into the tariff structure. It is the actual prices, and not Dr. Selwyn's "true" prices, that go into the computation of the Actual Price Index. Therefore, in order to calibrate the X-factor component of the Price Cap Index correctly, the TFP output measure must reflect the output components that go into that tariff structure. Only if the local tariff structure is reconfigured, so that minutes of use become the sole billing determinant for local services, does his argument for using DEM as the sole measure of local output become relevant. I do not believe that Dr. Selwyn is advocating such a change, but that is the logical conclusion of his insistence that DEM become the sole measure of local output. Moreover, given the amount of non-traffic sensitive costs in providing local services, it is debatable whether billing local services solely on a minutes-of-use basis would be the outcome that would be produced in a competitive market.

FCC Model

- Q. DR. SELWYN CONTINUES TO REPRESENT THE 6.5 PERCENT X FACTOR AS AN APPROPRIATE MEASURE OF LEC INDUSTRY PRODUCTIVITY. DO YOU AGREE?**

- A. No, I do not. There are a number of serious problems in the construction of the FCC model, which make the results produced by the model not credible. The FCC, itself, no longer bases its X factor on this or any other productivity measurement.



**Q. WHAT ARE THE PROBLEMS WITH THE FCC MODEL?**

A. As I stated in my rebuttal testimony, the data used by the FCC model only go through 1995. In addition I noted a number of serious methodological problems with the model. Dr. Staranczak has also found fault with the FCC model and states in his rebuttal testimony that (p. 10), "The "FCC LEC productivity study is methodologically flawed, and consequently produces inaccurate output growth, input price growth and productivity growth estimates."

**Q. DR. SELWYN STATES THAT HE DOES NOT AGREE WITH YOUR ASSERTION AND MR. GEBHARDT'S THAT THE FCC X-FACTOR OF 6.5% IS NOT BASED UPON PRODUCTIVITY ANALYSIS BUT IS SIMPLY A TRANSITIONAL MECHANISM. HOW DO YOU RESPOND?**

A. Dr. Selwyn then disputes the validity of the FCC's own statements. It is clearly stated in the FCC's CALLS Decision that the FCC views the price cap formula with a 6.5 percent X factor as a transitional mechanism. The FCC is also clear that the 6.5 percent X factor is not a productivity-based number, but rather an X-factor that allows the FCC to achieve desired pricing outcomes.<sup>3</sup> I have provided numerous examples in my rebuttal testimony where the FCC has stated these facts. For example, the FCC's proclamation that this is a transitional mechanism and that the X factor is no longer a productivity-based number is summarized in paragraph 140 from the FCC's decision, which I quoted in my rebuttal testimony:

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<sup>3</sup> Sixth Report and Order in CC Docket Nos. 96-262 and 94-1, Report and Order in CC Docket No. 99-249, Eleventh Report in Order in CC Docket No. 96-45, FCC 00-193, May 31, 2000.

The proposal thus transforms the X-factor from a productivity factor into a transitional mechanism that operates to reduce rates at a certain pace, and it would not be linked to a specific measure of productivity.

The absence of any linkage between productivity measurement and the FCC's X-factor is also illustrated by the following statement by the FCC:<sup>4</sup>

[T]he X-factor adopted under the CALLS Proposal is not a productivity factor as past X-factors have been, but is instead merely a ramp-down method to reduce traffic sensitive charges to the stated target levels. Therefore, the asserted inability of smaller price cap LECs to match the productivity growth of larger price cap LECs is irrelevant in this proceeding and we decline to adopt a separate X-factor for smaller price cap LECs.

These are the FCC's words; they are not mine nor are they Mr. Gebhardt's.

**Q. DR. SELWYN CLAIMS THAT YOU IMPLY THAT THE SAME TYPE OF MECHANISM AS THE CALLS PLAN SHOULD APPLY IN ILLINOIS. HOW DO YOU RESPOND?**

A. Dr. Selwyn's claim is preposterous. Nowhere in my testimony have I ever said or ever hinted in any way that the same mechanism should be applied in Illinois. To be perfectly clear, that is not my position.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes, it does.

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<sup>4</sup> Id., para. 173.